MEMORY MANAGEMENT METHOD FOR STORING MOTION VECTORS OF DE-CODED MACROBLOCKS

Abstract

A method for using memory to store motion vectors of decoded macroblocks as candidate predictors used in future motion vector decoding process. For a decoded first macroblock, the method allocates a first memory space and a second memory space in a first memory, and allocates a third memory space and a fourth memory space in a second memory for storing the motion vector(s) of the first macroblock. When allocating memory spaces in the first memory, the method considers a row of macroblocks in the video frame as a whole, and allocates a plurality of memory units that are sufficient for storing motion vectors of a row of macroblocks. During the process of decoding each row of macroblocks, the memory units of the first memory can be re-used to store motion vectors of decoded macroblocks.